IN THE CLAIMS

Please amend claims 16-17 as follows below.

1   1.   (Original)   A computer system comprising:

2   a memory;

3   a register file coupled to the memory through a memory

4   channel, the register file to store data for one or more

5   procedures in one or more frames, respectively; and

6   a register stack engine to monitor activity on the

7   memory channel and to transfer data between selected frames

8   of the register file and the memory responsive to available

9   bandwidth on the memory channel.

1   2.   (Original)   The computer system of claim 1,

2   wherein

3   the memory includes a backing store

4   and

5   the register stack engine transfers data between the

6   selected frames and the backing store.

1   3.   (Original)   The computer system of claim 1,

2   wherein

3   a portion of the register file is organized as a

4   register stack.

1   4.   (Original)   The computer system of claim 3,

2   wherein

3   the register stack engine includes a first pointer to

4   indicate a first location in a current frame of the register

5   stack.

1   5-11.   (Cancelled)

1   12.   (Original)   A method for managing data in a

2   register stack comprising:

3   designating registers in the register stack as clean or

4   dirty, according to whether data in the registers has been

5   spilled to a backing store;

6   monitoring operations on a memory channel; and

7   spilling data from a current oldest dirty register to

8   the backing store when capacity is available on the memory

9   channel.

1   13.   (Previously Presented)   The method of claim 12,

2   further comprising

3   updating a pointer to indicate a new oldest dirty

4   register when data is spilled from the current oldest dirty

5   register.

1   14. (Original) The method of claim 12, further

2   comprising

3   filling data from the backing store to a current oldest

4   clean register when capacity is available on the memory

5   channel.

1   15. (Cancelled)

1   16. (Currently Amended) A computer system comprising:

2   a memory system;

3   a register file to store data for an active procedure

4   and one or more inactive procedures; and

5   a register stack engine to monitor a memory channel to

6   determine available bandwidth to the memory system and to

7   transfer data between registers associated with the one or

8   more inactive procedures and the memory system, responsive

9   to the available bandwidth to the memory system.

1   17. (Currently Amended) The computer system of claim

2 16, wherein

3   the computer system further comprises

4   a load/store unit

5   and

6   the register stack engine to further monitor ~~monitors~~

7 the load/store unit to determine the available bandwidth to

8 the memory system.

1   18. (Cancelled)

1   19. (Original) The computer system of claim 16,

2 wherein

3   the register stack engine transfers data for inactive

4 procedures responsive to a mode status indicator.

1   20. (Cancelled)

1   21. (Original) The computer system of claim 19,

2 wherein

3   the mode status indicator is set under software control

4 responsive to a type of application to run on the computer

5 system.